Drug Enforcement Administration
Diversion Control Division
Drug & Chemical Evaluation Section

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2,5-DIMETHOXY-4-(n)-PROPYLTHIOPHENETHYLAMINE

(Street Names: 2C-T-7, Blue Mystic, T7, Beautiful, Tripstay, Tweety-Bird Mescaline)

Introduction:

2,5-dimethoxy-4-(n)-propylthiophenethylamine (2C-T-7) is a synthetic hallucinogen. The abuse of 2C-T-7 has been connected to death cases.

Licit Uses:

2C-T-7 is not approved for medical use in the United States.

Chemistry:

2,5-dimethoxy-4-(n)-propylthiophenethylamine (2C-T-7) is a phenethylamine hallucinogen that is structurally related to the schedule I phenethylamine hallucinogens 4-bromo-2,5-dimethoxyphenethylamine (2C-B, Nexus) and mescaline.

Pharmacology:

Based on the structural similarly of 2C-T-7 to 2C-B (Nexus) and mescaline, the pharmacological profile of 2C-T-7 is expected to be qualitatively similar to these hallucinogens.

Drug discrimination studies in animals indicate that 2C-T-7 produces discriminative stimulus effects similar to those of several schedule I hallucinogens. In rats trained to discriminate 4-methyl-2,5-dimethoxyamphetamine (DOM) from saline, 2C-T-7 fully substituted for DOM and was slightly less potent than 2C-B in eliciting DOM-like effects. 2C-T-7 was also shown to share some commonality with LSD; it partially substituted for LSD up to doses that severely disrupted performance in rats trained to discriminate LSD. 2C-T-7 can also function as a discriminative stimulus in rats. Rats readily learned to discriminate 2C-T-7 from saline. When either 2C-B or LSD was tested for substitution of 2C-T-7, each elicited 2C-T-7- like discriminative stimulus effects.

The subjective effects of 2C-T-7, like those of 2C-B and DOM, appear to be mediated through central serotonin receptors. 2C-T-7 selectively binds to the serotonin receptor system.

According to one published case report, 2C-T-7 abuse has been associated with convulsions in humans. The dose required for significant hallucinogenic effects are less than 50 mg and vary by how administered. Additionally, 2C-T-7's onset and duration of actions are dependent upon the route of administration. Following oral administration, onset and duration of effects may vary between 1 to 2.5 hours and last 5 to 7 hours, respectively. After intranasal administration, the onset of action and duration of effects may be quick, within 15 minutes and last up to 4 hours, respectively.

Illicit Uses:

2C-T-7 is abused orally and intranasally for its hallucinogenic effects. Information from a website about a variety of illicit drugs has suggested that 2C-T-7 produces effects similar to those of 2C-B. This information is based on individuals self-administering 2C-T-7 illicitly and self-reporting the effects. Its effects include visual hallucination, mood shifts, change in sense of well-being, emotionality, volatility, and increased appreciation of music. These effects are similar to other hallucinogenic substances that are selective to the serotonin receptor system.

User Population:

Young adults are the main abusers of 2C-T-7.

Illicit Distribution:

The Drug Enforcement Administration's National Forensic Laboratory Information System (NFLIS) Drug database collects scientifically verified data on drug items and cases submitted to and analyzed by participating federal, state, and local forensic drug laboratories. NFLIS-Drug received the first report of 2C-T-7 in 2001 and has a total of 71 reports from 16 states. Florida has the highest number at 30 reports, and 28 of these reports occurred in 2007. Since 2019, NFLIS-Drug received 0 reports of 2C-T-7.

2C-T-7 can be purchased over the internet. Sales through the internet were thought to be the major sources of 2C-T-7 in the United States.

One clandestine laboratory was identified in Las Vegas, NV as the supplier of 2C-T-7. 2C-T-7 has been sold under the street names Blue Mystic, T7, Beautiful, Tripstay, and Tweety-Bird Mescaline.

Control Status:

2C-T-7 is controlled in schedule I of the Controlled Substances Act.

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section; Fax 571-362-4250, Telephone 571-362-3249, or Email DPE@dea.gov.